

# SiSiB<sup>®</sup> PC5310 SILANE

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## CHEMICAL NAME

Trimethylchlorosilane, Chlorotrimethylsilane

## CHEMICAL STRUCTURE

### INTRODUCTION

SiSiB® PC5310 is a clear, colourless, caustic and highly flammable liquid with a pungent odour.

## TYPICAL PHYSICAL PROPERTIES

CAS No.	75-77-4
EINECS No.	200-900-5
Formula	C <sub>3</sub> H <sub>9</sub> CISi
Molecular Weight	108.64
Boiling Point	57°C [760mmHg]
Flash Point	-27°C
Color and Appearance	Colorless clear liquid
Density <sub>25/25°C</sub>	0.858
Refractive Index	1.389[25°C]
Purity:	Min 99.0%;

## APPLICATIONS

All chlorosilanes react with water to produce hydrogen chloride. The remaining hydroxyl group bonds to the silicon, initially forming a silol group (analogous to alcohol). In general, this will eventually bond to a solid oxide surface or react with another chlorosilane or silol

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molecule. In the latter cases, the oxygen atom forms a link between two silicon atoms, analogous to the ether linkage in organic chemicals, and identical to the bonding in silicon dioxide.

Organic chlorosilanes are usually used as coatings for silicon and glass surfaces, and in the production of silicone (polysiloxane) polymers.

Methyl chlorosilanes have one to three methyl groups. In the case of dichlorodimethylsilane, two chlorine atoms are available, so that a reaction with excess water produces a linear chain of ether-like linkages between silicon atoms. As in polyethers, these flexible linkages produce a rubbery polymer, polydimethylsiloxane (PDMS). Trichloromethylsilane can be used to induce branching and cross-linking in PDMS molecules, while chlorotrimethylsilane serves to end backbone chains, limiting molecular weight.

SiSiB® PC5310 is a typical Silane Blocking Agent, which can protect or deprotect functional groups selectively. It is widely used in the syntheses of drugs.

## PACKING AND STORAGE

SiSiB® PC5310 is supplied in net weight 170Kg steel drum.

In the unopened original container SiSiB® PC5310 has a shelf life of one year in a dry and cool place.

### Notes

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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Please send all technical questions concerning quality and product safety to: silanes@SiSiB.com.



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